

IN THE CLAIMS

Please amend the claims as follows:

1. (currently amended) A method of manufacturing a magnetic tunnel junction device, in which a stack comprising two magnetic layers and a barrier layer extending in between is formed, ~~characterized in that~~ one of the magnetic layers is structured by ~~means of~~ etching, in which, during etching, a part of the relevant layer is ~~made thinner~~ thinned by removing material until a rest layer remains, whereafter the electrical resistance of the rest layer is increased by chemical conversion.

2. (original) A method as claimed in claim 1, characterized in that the chemical conversion is effected by oxidation and/or nitridation.

3. (original) A method as claimed in claim 1, characterized in that physical etching is performed.

4. (original) A method as claimed in claim 1, characterized in that the magnetic layer to be structured is built up from, consecutively, a basic layer and a layer structure comprising at least a further layer for magnetic pinning of the basic layer.

5. (currently amended) A method as claimed in ~~claims~~ claim 3 and 4, characterized in that, prior to physical etching, the layer structure is chemically etched until the basic layer is reached.

6. (original) A method as claimed in claim 2, characterized in that an oxidation of the rest layer is effected by thermal oxidation, plasma oxidation or UV-assisted oxidation.

7. (original) A method as claimed in claim 2, characterized in that a nitridation of the rest layer is effected by thermal nitridation or plasma nitridation.

8. (original) A magnetic tunnel junction device obtained by means of the method as claimed in ~~any one of the preceding claims~~ claim 1.

9. (original) A magnetic tunnel junction device as claimed in claim 8, in which the layer other than the structured magnetic layer comprises a soft-magnetic layer which is usable as a flux guide.

10. (original) A magnetic field sensor provided with the magnetic tunnel junction device as claimed in claim 8.

11. (original) A magnetic field sensor as claimed in claim 9, provided with a magnetic yoke which is in magnetic contact with the soft-magnetic layer of the magnetic tunnel junction device.

12. (original) A magnetic memory provided with the magnetic tunnel junction device as claimed in claim 8.

13. (new) A method as claimed in claims 4, characterized in that, prior to physical etching, the layer structure is chemically etched until the basic layer is reached.

14. (new) The device of claim 8, characterized in that the chemical conversion is effected by oxidation and/or nitridation.

15. (new) The device of claim 8, characterized in that physical etching is performed.

16. (new) The device of claim 8, characterized in that the magnetic layer to be structured is built up from, consecutively, a basic layer and a layer structure comprising at least a further layer for magnetic pinning of the basic layer.

17. (new) The device of claim 15, characterized in that, prior to physical etching, the layer structure is chemically etched until the basic layer is reached.

18. (new) The device of claim 14, characterized in that an oxidation of the rest layer is effected by thermal oxidation, plasma oxidation or UV-assisted oxidation.

19. (new) The device of claim 14, characterized in that a nitridation of the rest layer is effected by thermal nitridation or plasma nitridation.

20. (new) The device of claim 16, characterized in that, prior to physical etching, the layer structure is chemically etched until the basic layer is reached.